

ABSTRACT OF THE DISCLOSURE

A directional coupler for a modem has a high common mode noise rejection characteristic with low transmit signal leakage, and reduced distortion of components mixed with a received signal. A primary filter network is connected to a communications circuit. The primary filter network has an output connected to an input of an amplifier. A feedback network is connected between the input and output of the amplifier. The primary filter network, the amplifier and the feedback network are arranged to provide a virtual ground at the input of the amplifier, and a filter characteristic which attenuates frequencies in the transmit signal band. The advantage is reduced component count while providing excellent transmit signal rejection and reducing received signal distortion.